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SAQ 1

- ① The flywheel is a heavy rotating wheel that reduces the jerk due to unavoidable speed fluctuations while a governor is a speed controlling device that controls speed variation caused due to varying load.
- ② A flywheel runs as long as the engine is running while the governor runs when the engine doesn't run at its mean speed.
- ③ Flywheels have no influence over the mean speed of the engine while the governor has no influence on the cyclic n speed.
- ④ Flywheels are heavy with a large moment of inertia while governor are light with a relatively small moment of inertia.
- ⑤ Which type of control the governor system is
Ans: Mechanical feedback control
- ⑥ ② The response of the centrifugal governor is slower than that of the inertia governor.
- ⑦ Only centrifugal force controls the centrifugal governor while both centrifugal and inertia forces control the inertia governor.

SAQ 2

The Watt governor is rarely used because it is limited to only vertical motion applications, and its sensitivity decreases with speed increase.

SAQ 3

The porter is more sensitive at higher speeds than the watt governor, and the porter governor can carry dead weight unlike the watt governor.

SAQ 4

A dead weight (gravity controlled) governor is prepared in I.C. engines as the basic principle of engine operation is centrifugation.